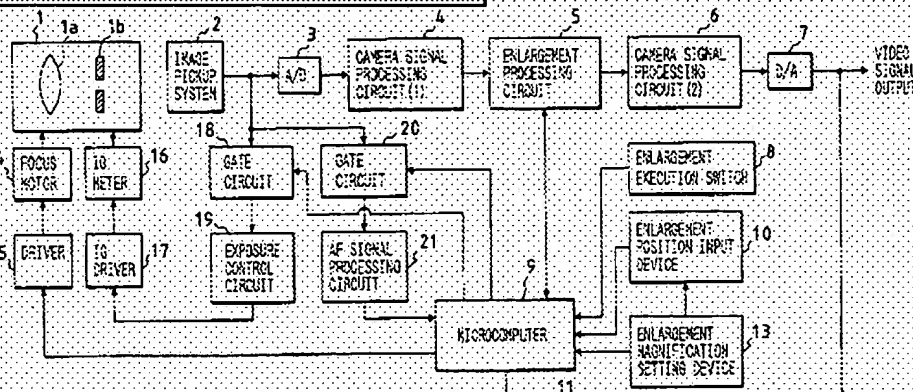


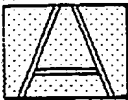
21 Claims, 9 Drawing Sheets



Abstract Text - ABTX (1):

An image pickup device is capable of picking up images while electrically enlarging the same. In enlarging image pickup, horizontal transfer pulses H.sub.1, H.sub.2, a reset pulse R, a clock signal CLK, sampling pulses SP.sub.1, SP.sub.2 and so on having the periods twice as long as those in the normal image pickup are generated from a horizontal transferring circuit in a timing pulse generating circuit. Thereby, charges stored in a CCD image sensor (6) are horizontally transferred by these signals. A vertical transfer circuit sets vertical transfer pulses V.sub.1 to V.sub.4 at arbitrary timings during 1H of a video period to output the same once in every 2H and outputs high speed vertical transfer pulses in two periods in a vertical blanking period and outputs a reading pulse TG between the first high speed vertical transfer period and the next high speed vertical transfer period. The charges stored in the CCD image sensor are then transferred in the vertical direction in response to these signals. Consequently, a selected area of the screen of the normal image pickup can be enlarged and picked up.

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FIG. 22B

Brief Summary Text - BSTX (32)

	U	Document	Issue	D
11	<input type="checkbox"/>	US 4910599	199003	Imaging high and
		A	20	
12	<input type="checkbox"/>	US 4876601	198910	Imaging variation
		A	24	
13	<input type="checkbox"/>	US 5019912	199105	Imaging enlarged
		A	28	
14	<input type="checkbox"/>	US 5023719	199106	Imaging real time
		A	11	



FIG. 22C

FIG. 22D

US-PAT-NO: 5835641

DOCUMENT-IDENTIFIER: US 5835641 A

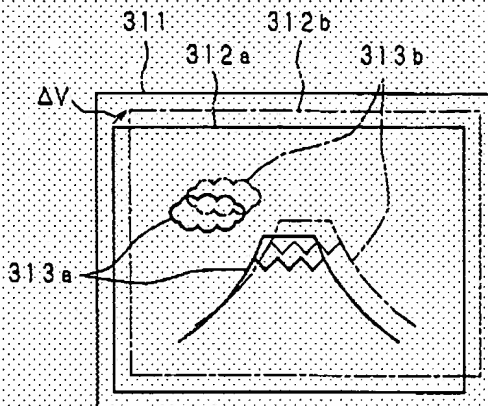
TITLE: Image pick-up apparatus
registered objects

----- KWIC -----

Detailed Description Text - DETX (20)

The operation of the zoom controller 15 v
FIGS. 12 (a), (b) and (c). First, assume the
numeral 32 has been obtained. The facial
portions designated by 32 from the image
position thereof. The zoom controller 15 th
the size and position of the face issues an

Fig. 7
Prior Art



	U	Document	Issue	D
18	r	US 5905530	199905	Image pi
		A	18	
19	c	US 5835641	199811	Image pi
		A	10	registre
20	r	US 2002004420	200204	IMAGE P
		6 A1	18	ELECTR
21	r	US 6445416	200209	Image pi
		B1	03	function

Claims Text - CLTX (2):

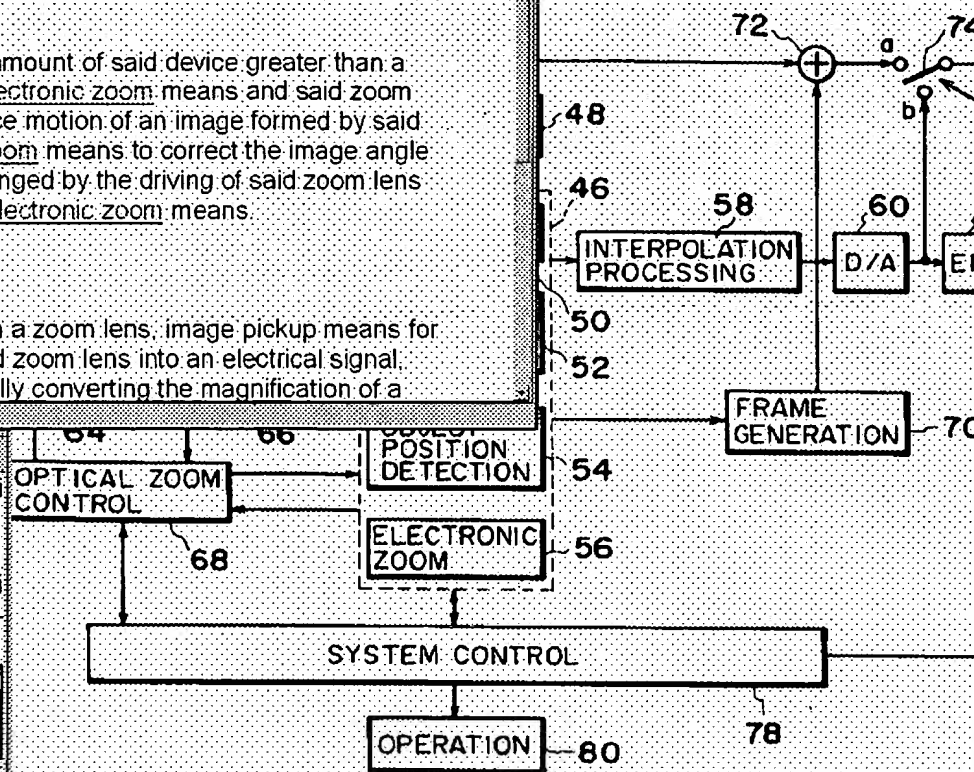
electronic zoom means for performing an electronic zoom operation on a designated portion of a picked-up image with changeable magnification.

Claims Text - CLTX (4):

control means operative upon vibration amount of said device greater than a predetermined value for controlling said electronic zoom means and said zoom lens to drive said zoom lens so as to reduce motion of an image formed by said zoom lens and to control said electronic zoom means to correct the image angle of the designated portion of the image changed by the driving of said zoom lens by the electronic zoom operation by said electronic zoom means.

Claims Text - CLTX (11):

6. An image pickup device provided with a zoom lens, image pickup means for converting an optical image formed by said zoom lens into an electrical signal, and electronic zoom means for electronically converting the magnification of a



U	Document	Issue D
21	US 6445416 B1	200209 03
22	JP 07283990 A	200211 05
23	US 6172707 B1	200101 09
24	JP 07283988 A	199510 27